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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,935	02/03/2006	Akihiko Nishio	009289-05198	8746

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EXAMINER

HSIEH, PING Y

ART UNIT	PAPER NUMBER
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2618

MAIL DATE	DELIVERY MODE
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/562,935	Applicant(s) NISHIO, AKIHIKO	
	Examiner PING Y. HSIEH	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-36 is/are pending in the application.
- 4a) Of the above claim(s) 35 and 36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Claims 35 and 36 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 11/24/09.

Applicant's election with traverse of invention I in the reply filed on 11/24/09 is acknowledged. The traversal is on the ground(s) that no unduly extensive or burdensome search would be required to examine the various claims of the noted Groups in the same application. This is not found persuasive because the groups of inventions are in different fields. Invention I is drawn to base station; invention II is drawn to mobile station. The structures of base station and mobile station are fundamentally different. Therefore, unduly extensive or burdensome search would be required to examine the various claims of the noted Groups in the same application.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 27-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al. (U.S. PG-PUB NO. 2002/0119781) in view of Parantainen et al. (U.S. PATENT NO. 7,092,373) and further in view of Wang et al. (U.S. PG-PUB NO. 2001/0028677).

-Regarding claims 27 and 30, Li et al. disclose a base station comprising an allocation unit configured to allocate a resource to be used by a mobile station **(the base station selects one or more clusters for the subscriber as disclosed in paragraph 43)**; a modulating unit **(Orthogonal Frequency Division Multiplexing (OFDM) is an efficient modulation scheme for signal transmission over frequency-selective channels as disclosed in paragraph 2)** configured to modulate first allocation information indicating the resource **(cluster allocation as disclosed in paragraph 44)** and second allocation information indicating a destination of the user data **(the base station notifies the subscriber (i.e. indicating destination) as disclosed in paragraph 44)**; and a transmitting unit configured to simultaneously transmit the modulated first allocation information and the modulated second allocation information **(the base station notifies the subscriber about the cluster allocation through a**

downlink common control channel or through a dedicated downlink traffic channel if the connection to the subscriber has already been established as disclosed in paragraph 44 and 81). However, Li et al. fail to specifically disclose the resource is to be used for transmitting an ACK/NACK signal in response to user data transmitted by the base station.

Parantainen et al. disclose the base station transmits information on the uplink channel to be used for acknowledgements as disclosed in fig. 4.

Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify allocated resource of Li et al. to be used for transmitting an ACK/NACK signal. One is motivated as such in order to make sure the data is successfully transmitted.

However, the combination of Li et al. and Parantainen et al. does not specifically disclose the allocation information is on a control channel and configured to transmit the user data on a user channel.

Wang et al. disclose a control channel is a dedicated channel used for transmitting cell identification and paging information and the traffic channels carry the voice and data information in paragraph 30.

Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the combination of Li et al. and Parantainen et al. to include the features as disclosed by Wang et al. One is motivated as such in order to separate control information with actual user data.

-Regarding claims 28 and 31, the combination further discloses the resource comprises a subcarrier **(Li et al., as shown in fig. 1A and further disclosed in paragraph 37).**

-Regarding claims 29 and 32, although the combination does not specifically disclose an encoding unit configured to encode the first allocation information together with the second allocation information, it would have been obvious to one of ordinary skills in the art at the time of invention to do so in order to simultaneously transmit the two information together in a channel.

4. Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al. (U.S. PG-PUB NO. 2002/0119781) in view of Parantainen et al. (U.S. PATENT NO. 7,092,373), Wang et al. (U.S. PG-PUB NO. 2001/0028677) and further in view of Khan (U.S. PG-PUB NO. 2004/0179493).

-Regarding claims 33 and 34, the combination teaches all the limitations as claimed in claims 27 and 30. However, the combination fails to specifically disclose a generating unit configured to generate transmit power information of the ACK/NACK signal, wherein said modulating unit modulates the transmit power information, and said transmitting unit simultaneously transmits the modulated first allocation information, the modulated second allocation information and the modulated power information on the control channel.

Khan disclose a generating unit configured to generate transmit power information of the ACK/NACK signal, wherein said modulating unit modulates the transmit power information, and said transmitting unit simultaneously transmits

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the modulated first allocation information, the modulated second allocation information and the modulated power information on the control channel (**see paragraph 40**).

Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the combination of Li et al., Parantainen et al., and Wang et al. to include the features as disclosed by Khan. One is motivated as such in order to provide improve resource efficiency.

Response to Arguments

Applicant's arguments with respect to claims 27-34 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PING Y. HSIEH whose telephone number is (571)270-3011. The examiner can normally be reached on Monday~Thursday 8am ~ 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. Y. H./
Examiner, Art Unit 2618

/Lana N. Le/
Primary Examiner, Art Unit 2614